Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
SEP 11 1964
CURRENT SERIAL RECORDS

FOREIGN AGRICULTURE ECONOMICS

TURKEY'S Agricultural Economy in Brief

by Henrietta M. Holm

ERS-Foreign 97 · Foreign Regional Analysis Division · September 1964

SUMMARY

The economy of the Republic of Turkey is predominantly agricultural. Although there is an increasing trend toward urbanization, less than a third of the population lives in towns and cities. While most of the country is ill-suited for agricultural pursuits, agriculture directly supports most of the people. About four-fifths of all Turkish exports, by value, are of farm commodities. But these are limited in variety.

In a little more than 20 years, agricultural acreage has doubled--largely as a result of mechanization. Total production, however, has yet not gained in ratio comparable to the expansion of the agricultural area. Moreover, further expansion is difficult. Increased production in the future must come largely from more efficient, more intensive use of presently harvested and grazed land.

Turkey's potential for agricultural improvement is hampered by enormous obstacles, not the least of which is cultural resistance in some areas to progressive change. Political conditions have been unsettled. Investment in agricultural development projects has continued, but in some instances has failed to produce the returns anticipated by economic planners. This is partly a result of adverse weather over a period of several years. Actual accomplishment of development goals is now heavily dependent on foreign aid.

POPULATION

The midyear 1963 population of Turkey was estimated at 30 million. The annual rate of increase has been 3 percent in recent years. Population density averages close to 100 persons per square mile. About half of the people live on the Anatolian plateau, principally in small villages. The country's agricultural population is over 70 percent of the total. The literacy rate

Economic Research Service, U.S. Department of Agriculture

in Turkey is considered to be about 40 percent--an increase of more than 30 percent since the founding of the Republic in 1923.

The Turkish people are relatively homogeneous. Kurds constitute a linquistic and ethnic--but not religious--minority of about 9 percent. Over 98 percent of the population is Muslim. Christians (largely Greeks and Armenians) and Jews comprise less than 2 percent of the people.

ECONOMIC SITUATION

Gross national product.--GNP was $6.5 billion in 1963 (at 1962 prices)--of which 35 percent stemmed from agriculture. Per capita income from agricultural occupations is estimated at $70 a year, only about one-third that of nonagricultural sectors of the economy.

Balance of trade.--Excess of imports over exports averaged $167 million a year between 1959 and 1962 and rose to $323 million in 1963.

Economic assistance.--Turkey has received considerable financial assistance in the past from the United States, although only a relatively small portion of this has been allocated directly for agricultural purposes. Over $110 million in U.S. funds was used to finance Turkey's agricultural mechanization program, mostly between 1949 and 1953. More recently, U.S. interest in improvement of Turkish agriculture has mainly been directed toward expanding irrigation and strengthening agricultural services.

As a participating member of the Organization for European Economic Cooperation, Turkey has benefited from the organization's efforts toward mutual improvement of rural productivity. Some special assistance has been provided to Turkey as part of the European Productivity Agency's program for less developed areas. Both the Organization for Economic Cooperation and Development and the European Economic Community have recognized the Turkish need for aid in achieving the economic growth projected in its present development plans.

Economic development.--Turkey's Five-Year Plan for Economic Development--the first stage in a 15-year perspective--is designed to maintain a 7 percent rate of growth in national income (an increase in per capita income of 4 percent) each year. Investment requirements are estimated at $6.6 billion, mainly for allocation to agriculture, housing, transportation, and heavy industry. Preliminary targets for agriculture include increased output and stocks of wheat, use of more corn for animal feeding and less barley for human food, reform of the livestock industry, and increasing emphasis on production and exports of high-value cash crops.

Economic outlook.--The national economy is currently operating well below capacity. Political crises during its tenure have hampered the coalition government--a new political concept for Turkey--in its disposition of the nation's many economic and social problems.

For agriculture, the problems faced today differ considerably from those of a decade ago. Then, additional food supplies and employment could be provided by simply expanding the cultivated acreage. This process can go little further--in fact, a plan to retire a considerable area of farmland is currently under review. Now, unless there is an appreciable increase in production per acre, food import requirements will continue to rise. Even in harvest seasons, a million agricultural workers are underemployed. Unless job opportunities in nonagricultural sectors of the economy can be expanded, unemployment will grow as more farm workers seek relief in the

cities. Increased imports of food in the future would tend to endanger the investment programs undertaken to create new jobs and add to the nation's output of goods and services, since implementation of these plans would require heavy imports of equipment.

PHYSICAL FEATURES

The land area of Turkey is 300,000 square miles, an area nearly as large as the States of Texas and Louisiana combined.

Turkey in Asia (97 percent of the country) is made up of the high Anatolian plateau and much lower coastal belts. Nearly half the country lies above 5,000 feet in altitude. Several mountain peaks rise between 10,000 and 15,000 feet; Mt. Ararat, the highest, reaches nearly 17,000 feet.

Droughts are common. Mean annual precipitation is only 11 inches in parts of the interior. But most of the coastlands receive over 20 inches (although the fall widely varies from year to year) and more than 100 inches of rain falls annually on short stretches of land on the eastern Black Sea coast. Mean temperatures on the central plateau range from 30° F. in winter to 75° F. in summer. The Mediterranean coast has mean temperatures of 50° F. in winter and 80° F. in summer.

There are numerous water courses in the country. The larger rivers, with the watersheds of the coastal mountains, hold best potentialities for irrigation of surrounding lands.

LAND USE

Agricultural land makes up nearly 70 percent of the total area of the country. Now over 45 percent of the agricultural land is arable, but only two-thirds of this is sown to crops. Approximately 5 million acres are under some form of irrigation. Gains in the arable area between 1948 and 1961, at the expense of other categories of land, are shown in Table 1.

PATTERNS OF AGRICULTURE

Farm units customarily consist of the crop area only; pastures are held by the community. A grain and fallow rotation is common over a large part of the country.

Over 70 percent of the farm population owns all, and another 22 percent owns half, of the land they work. About a quarter of the total area farmed is held in tracts of more than 125 acres. Over 60 percent of farm families own less than 12 acres of cropland and nearly 85 percent less than 25 acres--farms too small and too fragmented to be mechanized economically. Low average farm income permits few modern improvements.

Turkish farmers rely largely on primitive farming implements, animal draft power, and much hand labor. Little fertilizer is used (manure is burned for fuel), and the use of chemical fertilizer is not widespread. Disease and pest control and use of selected seed are limited.

The soil has lost much of its fertility through centuries of mismanagement. Pasturelands are badly overgrazed. While irrigation has long been practiced in most parts of the country, much is only partial irrigation under outmoded systems. The average Turkish farmer has not acquired the technical skills and the facilities needed to take advantage of additional water made

Table 1.--Turkey: Land Use, 1948, 1955, 1961 and 1963 1/

Use	1948	1955	1961	1963 1/
	Million acres			
Arable land, including fallow land and orchards	49.3	59.4	62.2	62.4
Permanent meadows and pastures	89.4	73.6	71.2	71.1
Forests	29.4	25.8	26.2	26.2
Unused but potentially productive land	6.7	---	---	---
Other land, including wasteland	17.2	33.2	32.4	32.3
Total area	192.0	192.0	192.0	192.0

1/ Partly estimated.

available through construction of large storage dams and exploitation of underground water supplies in recent years. Many farmers are reluctant to break with tradition and follow new official recommendations regarding irrigation and plant unfamiliar crops and crop varieties.

Limited numbers of private landholders have progressed beyond traditional farming methods. The 20 state-owned crop production farms--combining more than 750,000 acres--are modern and fully mechanized. Originally limited to grain farming, these enterprises now produce a variety of crops and also serve as training centers in modern farming techniques. However, of the 44 million acres cultivated throughout the country in 1961, less than 8 million acres were machine cultivated.

AGRICULTURAL POLICY

Turkey's agricultural policy is broadly oriented toward creation of a stronger market-directed farming sector, with increased production for domestic consumption and sales abroad. Government participation in agricultural activities has a long history in Turkey. Production of crops and livestock is the responsibility of the Ministry of Agriculture. But Toprak (Office of Soil Products), an autonomous agency which reports to the Ministry of Economy, has operated since 1938 to buy, sell, and export grains at government-fixed prices. Toprak also has the monopoly for opium sales. Tekel (Turkish Monopoly Administration) performs the same functions for tobacco and locally grown tea. Meat, fish, and sugar are similarly controlled. Semiofficial unions of farmers' cooperatives are active in price stabilization operations for filberts and pistachios, and for figs, raisins, olives, and cotton. The government annually establishes producer support prices, based on quality, for the major agricultural commodities. Prices to consumers are also government controlled.

Reforms drafted by the Turkish Government for agriculture include redistribution of land; expansion of irrigated areas; upgrading the livestock industry; extending use of fertilizers and pesticides; revisions in agricultural trade policy; review of agricultural credit; and broadening of existing facilities for agricultural education, extension, and research.

Agricultural training at basic levels is available under a monitor system through village institutes. Junior and senior high school level agricultural schools offer practical training. Both suffer from insufficient teaching personnel and equipment.

Under a U.S. technical assistance program, the University of Nebraska has organized college level training at the University of Ankara's Faculties of Agriculture and Veterinary Science. The University of Nebraska also assisted the Turkish Government in establishing Ataturk University--a land-grant-type facility--at Erzurum in 1948. There is a Faculty of Agriculture at Aegean University at Izmir.

Specialized agricultural research organizations operate throughout the country, but their work generally is uncoordinated and has been hampered by scarcity of trained technicians. However, a new consolidated Research Division is being set up. U.S. technical assistance has been given in training additional workers in agricultural research. Turkey's extension services, also, have been expanded with U.S. help. But partly due to insufficient funds, the services offered have not always been effective.

AGRICULTURAL PRODUCTION

Leading crops are wheat, barley, other grains, grapes, citrus, a wide variety of other fruits, sugar beets, nuts, tobacco, and cotton. Domestic production of these crops is used both for local consumption and for export. Sheep and goats far outnumber any other kind of farm animal. Meat production does not meet domestic demand. The dairy industry has not yet been developed on a large commercial scale. Most of the output of livestock and livestock products is consumed domestically.

Considerable gains have been made in railroad and highway construction, and storage and processing has improved in recent years. But marketing and transportation facilities are not yet adequate for moving large shipments of produce to distant points. A relatively small proportion of total farm production now enters commercial channels. This is particularly true of livestock and livestock products and of fresh fruits and vegetables.

As shown in table 2, output of most farm products has shown impressive gains since 1948 despite recurrent droughts, the most recent of these between 1958 and 1961.

The 1963 livestock population is officially reported at 12 million head of cattle; 1.2 million buffaloes; 32 million sheep; close to 6 million Angora goats and 16 million ordinary goats. Donkeys and mules numbered about 2 million; horses only 1.2 million (Turkey's major draft animal is the ox); and camels, 55,000. Swine are estimated at about 130,000 head; these are raised only by the small non-Muslim population.

Some 40,000 to 45,000 metric tons of wool (greasy basis); 13,000 tons of goat hair; 8,500 tons of mohair; 6 million sheep and lambskins and a total of roughly 3 million cattle and buffalo hides

Table 2.--Turkey: Estimated production of principal agricultural commodities, 1948, average 1952-54, annual 1961-63

Commodity	1948	Average 1952-54	1961	1962	1963 1/
	1,000 metric tons				
Wheat	3,946	6,468	6,124	6,804	7,950
Barley	1,959	3,076	3,092	3,200	3,800
Rye	394	613	610	625	800
Corn	701	837	711	648	810
Oats	305	382	401	400	475
Pulses, edible	276	275	344	370	400
Potatoes	454	981	1,300	1,400	1,500
Sugar, refined	119	190	470	390	425
Cotton lint	67	144	207	235	235
Cottonseed	142	305	439	486	460
Tobacco	74	104	99	82	132
Grapes	1,468	1,961	3,000	3,382	3,000
Citrus fruits	60	136	295	294	307
Apples	77	132	280	322	325
Peaches	6	20	98	74	80
Figs, fresh	119	110	200	210	210
Figs, dried	32	30	50	43	45
Filberts, unshelled	50	74	70	90	85
Milk	2,270	2,200	2,825	2,835	2,955
Eggs	44	54	65	66	70
Meat	150	220	356	378	380
Wool, cleaned	19	19	18	20	21
Production index:					
All crops	71	100	120	124	135

1/ Preliminary.

and goatskins are produced annually. There are estimated to be about 27 million chickens and 1.8 million turkeys in the country.

CONSUMPTION OF AGRICULTURAL PRODUCTS

The national level of food consumption--averaging nearly 2,600 calories per capita daily in the 3-year period, 1959-61--is one of the highest in West Asia. Turkey is basically self-sufficient in foods, importing fats and some grain in drought years, but exporting sugar, fruit and nuts, as well as grains in years of normal production. On a countrywide average, grains (mainly wheat) and pulses make up over 70 percent of the caloric value of the food supply. Considerable amounts of fresh fruits and vegetables are consumed, however. Consumption of fats, although not high, is greater than in most other countries of West Asia. Use of animal products and per capita consumption of sugar are below those of other countries of the area.

AGRICULTURAL TRADE

Turkey's agricultural export trade usually accounts for about 85 percent of the value of all Turkish exports. In 1962 tobacco, cotton, fruits (mainly dried), and nuts (principally filberts,

walnuts, and pistachios) contributed over 70 percent of the total value of all exports ($381 million). Other important agricultural exports are live animals, wool and hair, hides and skins, and sugar.

About half of all agricultural exports, in terms of value, are sold in western Europe. Turkey has entered into an association agreement with the European Economic Community that will permit tariff concessions on major exports and provide economic aid during a transitional period. A little less than 20 percent of all agricultural exports have recently gone to eastern Europe and the Soviet Bloc. Trade with the United States is detailed below.

Imports into Turkey are subject to rigid licensing and exchange controls. Export premiums are paid by the government on cotton, raisins, figs, and certain other farm products. To stabilize export price levels some farm commodities--including pistachios, sausage casings, hides and skins, filberts, vegetable oils, cotton, mohair, tobacco, and wool--are subject to registration prior to exports.

For some years after the early 1950's, Turkish imports of farm products rarely exceeded a tenth of the value of total imports. But in 5 of the 7 years between 1956 and 1962, the agricultural share of total imports increased to an average of over 16 percent.

	1956	1957	1958	1959	1960	1961	1962
Wheat	6.1	9.5	1.4	---	2.7	12.7	8.2
Fats and oils	.1	2.4	6.5	3.7	3.1	.2	3.5
Other farm products	4.0	7.2	7.4	7.7	4.2	7.3	4.9
Total farm products	10.2	19.1	15.3	11.4	10.0	20.2	16.6

Trade with the United States.--The United States purchased about 16 percent, by value, of Turkish agricultural exports in 1963 at a cost of nearly $63 million. Tobacco alone accounted for $46 million; nuts, $6.8 million. Other U.S. agricultural imports from Turkey are listed in table 3.

The U.S. share of the Turkish market depends largely on U.S. financial aid, including partial financing of import programs. Since 1954, the United States has supplied the greater part of Turkish agricultural imports, mainly in exchange for foreign currencies under the P.L. 480 program; cash dollar sales are relatively low. The substantial increase during 1962 over previous levels (table 3) was principally due to the drought-induced shortage of wheat.

Competition with U.S. exports of farm products.--In years of normal production, Turkey's most highly competitive agricultural exports are durum wheat, barley, and cotton. These products are not strictly comparable with U.S. export offerings, however. External sales of Turkish wheat include a considerable proportion of hard durum wheat, which is usually in demand in Europe. Turkey's soft wheat and cotton are generally inferior to quality to U.S. grades. Turkish barley competes with U.S. sales to Europe for feed and industrial uses. Turkey competes indirectly with U.S. tobacco sales in both the U.S. domestic market and world markets. Nuts, dried fruits, and in some years, citrus fruits are also competitive with U.S. domestic production.

U. S. Department of Agriculture
Washington D. C. 20250

POSTAGE AND FEES PAID
U. S. Department of Agriculture

OFFICIAL BUSINESS

Table 3.--Agricultural trade between the United States and Turkey, average 1958-61, annual 1962 and 1963

U.S. agricultural imports from Turkey				U.S. agricultural exports to Turkey			
Commodity	Average 1958-61	1962	1963 1/	Commodity	Average 1958-61	1962	1963 1/
	Million dollars				Million dollars		
Tobacco, leaf	48.6	45.6	46.1	Wheat	26.3	59.4	30.9
Nuts 2/	4.8	6.4	6.8	Other grains and flour	1.4	.2	1.9
Dried fruit 3/	1.0	1.3	.3	Tallow, ined.	4/	2.5	3.8
Spices	.4	.5	.2	Soybean oil	7.4	9.8	14.3
Molasses	.2	---	---	Cottonseed oil	8.2	5.3	6.5
Sugar	---	5.9	.9	Cattle hides	2.0	.9	1.7
Wool and hair	1.3	1.0	1.7	Wool	1.6	5/	5/
Sheep and lamb-skins	1.4	1.2	.5	Food for relief 6/	.7	2.5	2.7
Opium	.6	.1	1.0				
Other agricultural	.9	1.7	2.1	Other agricultural	2.0	.5	.7
Total agricultural	59.2	63.7	59.6	Total agricultural	49.6	81.1	62.5
Non-agricultural	8.0	6.8	3.0	Non-agricultural	79.7	112.5	153.3
Total imports	67.2	70.5	62.6	Total exports	129.3	193.6	215.8

1/ Preliminary. 2/ Filberts, walnuts, and pistachios. 3/ Mainly fig paste. 4/ Negligible. 5/ Less than $1,000. 6/ Mainly nonfat dry milk and wheat flour.